

Art Unit: 2829

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11/03/04

Claims 1 through 4 are cancelled

Claim 5 (Currently Amended): ~~A-An electromagnetic probe according to claim 1, comprising at least one assembly comprising in combination:~~

- ~~. a coaxial type connection;~~
- ~~. a ground plane connected to the outer sheath of the coaxial connection;~~
- ~~. a reflector cone placed facing the ground plane and shaped to define impedance that is at least substantially constant along its profile; and~~
- ~~. a dielectric medium interposed at least in part between the reflector cone and the ground plane, wherein the reflector cone has a profiled surface defined by a generator line that is concave towards the ground plane.~~

Claims 6 through 21 are cancelled

Claim 22 (New): A probe according to claim 5, further comprising a sleeve connected to the central part of the ground plane and placed facing the reflector cone.

Claim 23 (New): A probe according to claim 5, wherein the assembly is circularly symmetrical about a central axis.

Claim 24 (New): A probe according to claim 5, wherein the dielectric medium is circularly symmetrical about a central axis and possesses permittivity greater than 1.

Claim 25 (New): A probe according to claim 5, wherein the dielectric medium substantially fills the space lying between the reflector cone and the ground plane, with the exception of a peripheral zone adjacent to the ground plane.